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09/514,699	02/28/2000	Weizhong Zhao	D/98621	8912

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John E Beck
Xerox Corporation
Xerox Square 20A
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EXAMINER

NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/514,699

Applicant(s)

ZHAO et al

Examiner

J. DOTE

Group Art Unit

1753

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 10/15/01, 7/25/01
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 3, 4, 5, 7, 9-20 is/are pending in the application.
- Of the above claim(s) 11-20 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 3-5, 7-10 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☒ Claim(s) 1, 3-5, 7, 9-20 are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Int rview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Application/Control Number: 09/514,699
Art Unit: 1753

Page 2

1. The examiner acknowledges the amendments to claims 3, 5, and 7, and the cancellation of claims 2, 6, and 8, filed in Paper No. 6 on Oct. 15, 2001. Claims 1, 3-5, 7, and 9-20 are pending.

The amendments to the claims filed in Paper No. 4 on Jul. 25, 2001, were not entered for the reasons set forth in Paper No. 3 mailed Sep. 28, 2001.

2. Applicants' election with traverse of the invention of Group I, claims 1-10, in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the inventions of Group II, a liquid developer and apparatus, are sufficiently related and "undue burden would not be placed on the examiner to simultaneously examine and process" (emphasis in the original) the inventions of Groups I and II. This is not found persuasive because, as set forth in the restriction requirement set forth in the Office action mailed on Apr. 23, 2001, Paper No. 3, the two groups are patentably distinct because the liquid developer of Group II can be practiced by a materially different process from that recited in claims 1-10, and the process of Group I can be practiced by hand. Applicants have not controverted the reasons set forth in the restriction requirement between the process of Group I and the liquid developer composition and apparatus of Group II. The searches for the process, the liquid developer composition, and the apparatus are not co-extensive. A search

Application/Control Number: 09/514,699
Art Unit: 1753

Page 3

for the method does not require a search in the composition subclass 430/115, or in the apparatus subclass 399/250. (The subclass 250 was inadvertently omitted from the restriction requirement set forth in Paper No. 3.) Thus, the distinct searches and the distinct issues of patentability establish the burden on the Office.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 11-20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement in Paper No. 4.

3. It is noted that the instant application incorporates by reference in its entirety the liquid development apparatus and method described in abandoned US Application No. 08/963,360 (Application'360). See page 1, line 10, and page 22, line 29, to page 23, line 2, of the instant specification. It appears that the process and apparatus described in Application'360 is essential subject matter. Essential subject matter is defined in MPEP 608.01(p), Section A.

If the instant application is allowed, applicants will be required to amend the specification to include the essential

material incorporated by reference. The amendment must be accompanied by an affidavit or declaration stating that the amendatory material consists of the same material incorporated by reference in the application. MPEP 601.01(p) Section A1.

4. The rejections of claims 3 and 5-7 under 35 U.S.C. 112, second paragraph, set forth in Paper No. 3, paragraph 8, have been withdrawn in response to the amendments to those claims.

5. The disclosure is objected to because of the following informalities:

The use of trademarks, e.g., Elvax 200W [sic: ELVAX 200W] in the replacement paragraph at page 26, line 14, of the specification, filed in Paper No. 4, has been noted in this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

Applicants' arguments filed in Paper No. 4 have been fully considered but they are not persuasive. Applicants assert that the amendment to the specification filed in Paper No. 4 overcomes the objection. However, as set forth in the above objection, the amendment did not capitalize all the trademarks disclosed in the specification. Accordingly, the objection stands.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in the term "developer cake" because it is not clear what is the scope of the term "developer cake," which is not defined in the instant specification.

Claim 10 is indefinite in the phrase "the reclaimed developer cake is separated from the second liquid developer until the solids content of the second liquid developer drops below from about 6 to about 10 weight percent" for lack of antecedent basis in claim 1. Claim 1 recites that the reclaimed

developer cake is redispersed in the second developer liquid. In other words, the developer cake is dispersed in the second liquid developer in the form of toner particles or solids. It is not apparent how the redispersed toner particles from the developer cake can be separated from the toner particles already present in the second liquid toner to separate the reclaimed developer cake.

Applicants' arguments filed in Paper No. 4 have been fully considered but they are not persuasive.

Applicants assert that the term "developer cake" is defined at page 12, lines 8 and 9, of the specification. However, the specification at page 12 merely discloses "depositing the second liquid developer on to a liquid receiver member to form a developer cake." The specification does not define "developer cake." Accordingly, the rejection stands.

Applicants did not address the rejection of claim 10. Thus, the rejection stands.

8. The term "developer cake" recited in claim 1 is interpreted by the examiner to mean that the liquid developer (or toner) layer formed on a developing donor has a concentration of at least about 10 wt% of toner particles. See US 6,122,471, col. 2, lines 19-22, which discloses that "a toner cake layer is generally characterized as having a high solids content (e.g., approximately 10-50 percent solids . . ."

Contrary to applicants' comments in Paper No. 4, page 6, there is no rejection with respect to the term "toner cake layer." In Paper No. 3, paragraph 10, the term "toner cake layer" referenced to claim 1 was an inadvertent error. However, as noted in above, the term "developer cake" recited in instant claim 1 is interpreted by the examiner to have the same meaning as the term "toner cake layer" disclosed in the prior art.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the

examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1, 4, 5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,345,296 (Wellings) combined with US 5,254,427 (Lane), as evidenced by the EXXON product information bulletins for ISOPAR G and H.

Wellings discloses a process for forming a toner image that meets the steps recited in instant claims 1, 5, 7, and 9, but for the liquid developer concentrate comprising the liquid developer reconstitution compound recited in instant claim 1. The process comprises the steps of: 1) dispersing a liquid developer concentrate in the carrier liquid of a working liquid developer solution; 2) depositing the working developer solution onto a developer roller to form a liquid developer layer; 3) developing a latent electrostatic image formed on a photoconductor with the liquid developer layer; 4) transferring the developed image to paper; 5) reclaiming the unused liquid developer from the developer roller by scraping off the unused liquid developer with a blade; and 6) returning the reclaimed liquid developer to the working developer. Col. 4, line 64, to col. 5, line 32, Fig. 1, reference labels 14-21, 23, 24, 30, and 39. The latent

electrostatic image is formed on the photoconductor by a corona discharge. Col. 4, lines 45-47, and Fig. 1, reference label 2. Wellings discloses that the concentration of toner particles in the working liquid developer can range from 2 to 10 wt%. Col. 7, lines 26-29. The amount of 10 wt% toner particles in Wellings' working developer meets the amount of toner particles required to comprise a "toner cake" layer. See paragraph 8, supra.

Wellings further discloses that the concentration of the toner particles in the working liquid developer in the developing tank is monitored by a sensor. Col. 5, lines 24-27, and Fig. 1, reference label 33. The concentration of toner particles of the working developer is maintained at a predetermined concentration by dispersing the liquid developer concentrate in the working liquid developer. Col. 5, lines 27-32.

As discussed above, Wellings does not disclose that the liquid developer concentrate comprises the liquid developer reconstitution compound recited in instant claim 1. However, Wellings discloses that his liquid developer concentrate comprises toner particles, which comprise a binder resin and a colorant, and a carrier liquid. Col. 5, lines 34-45. The liquid developer concentrate has a high solids content, having a toner particle concentration ranging from 10 to 80 wt%. Col. 5, lines 38-45.

Lane discloses a liquid developer concentrate comprising up to 80 wt% of toner particles, a surfactant, and a carrier liquid, such as ISOPAR G or H. Col. 3, lines 18-31, col. 5, lines 5-9. The surfactant can be a polydimethylsiloxane, a polyether, or AB block copolymers having amino sites. Col. 3, line 59, to col. 4, line 52, and examples 1-6. Lane discloses that the surfactant permits easy redispersion of the toner particles at the time of use. Col. 3, lines 9-15. Lane discloses that his liquid developer can be easily redispersed and eliminates the need for frequent disposal of liquid from the developing apparatus. Col. 3, lines 3-8.

Neither Lane nor Wellings discloses that the working liquid developer obtained from a liquid developer concentrate is a dielectric having a conductivity of from about 0.01 to about 5 pS/cm as recited in instant claim 4. However, both Wellings and Lane disclose that the carrier liquid used in the liquid developer concentrate and in the working liquid developer can be an aliphatic hydrocarbon such as ISOPAR. Wellings, col. 5, lines 37-38; Lane, col. 4, line 68, to col. 5, line 28. Lane discloses that ISOPAR liquids, such as ISOPAR L, G, and H, have a volume resistivity in excess of 10^9 ohm-cm and a dielectric constant below 3.0. Lane, col. 5, lines 5-10 and 37-40. EXXON product information bulletins disclose that ISOPAR G and H have a maximum specific conductivity of 5.0×10^{-14} (ohm-cm) $^{-1}$, which is

0.05 pS/cm. (1 pS/cm = 10^{-12} S/cm, where pS is a pico-siemen.
1 S/cm is equal to 1 mho/cm, which is equal to 1 (ohm-cm)⁻¹.)
Because the carrier liquids ISOPAR G and H have a conductivity
that meets the conductivity recited in the instant claims, it is
reasonable to presume that the working liquid developer obtained
from Lane's liquid developer concentrate is a dielectric and has
a conductivity that meets the limitation recited instant claim 4.
The burden is on applicants to prove otherwise. In re
Fitzgerald, 205 USPQ 594 (CCPA 1980).

It would have been obvious for a person having ordinary
skill in the art, in view of the teachings of Lane, to use Lane's
liquid developer concentrate comprising a surfactant as disclosed
by Lane as the liquid developer concentrate in the process
disclosed by Wellings, because that person would have had a
reasonable expectation of successfully obtaining a process for
forming a toner image using a liquid developer concentrate, where
the toner particles in the liquid developer concentrate are
readily redispersed into the working liquid developer.

Applicants' arguments filed in Paper No. 4 have been fully
considered but they are not persuasive.

Applicants assert that Wellings does not teach the
following: (1) a liquid developer reconstitution compound; (2)
the dispersion of a first and second liquid developer; (3) the
formation of a second liquid developer by dispersion of a first

liquid developer concentrate in a carrier liquid into additional carrier liquid; and (4) redispersing the reclaimed undeveloped cake in the second developer liquid. Applicants argue that there is no reason or suggestion in the references to combine the references to arrive at the instant claimed process.

The rejection is not under 35 U.S.C. 102, but under 35 U.S.C. 103(a). Applicants cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As set forth in the above rejection, the combined teachings of Wellings and Lane meets the steps recited in the instant claims. Contrary to applicants, as discussed in the rejection above, Wellings teaches items (2) through (4) above.

As discussed in the rejection, Wellings teaches dispersing a liquid developer concentrate [i.e., a first liquid developer concentrate] in a carrier liquid of a working developer solution [i.e., a second liquid developer] (item 2). Col. 5, lines 29-32, and Fig. 1, labels 23, 30 and 39. See above rejection, first paragraph, step (1). Wellings' liquid developer concentrate comprises toner particles, which comprises a binder resin and a colorant, and a carrier liquid. Col. 5, lines 33-37. See the

above rejection, third paragraph. Thus, Wellings' step (1) meets the dispersing step (item 3), but for the presence of the reconstitution compound recited in instant claim.

Wellings teaches returning the reclaimed liquid developer [the unused liquid developer scraped off from the developer roller] to the working developer. Col. 5, lines 2-4, and Fig. 1, labels 23 and 24. See the above rejection, first paragraph, steps (5) and (6). Wellings' steps thus meet the reclaiming step and redispersing the reclaimed developer step (item 4) recited in instant claim 1.

The reasons for combining the references do not have to be those of applicants. As discussed in the rejection, Lane's liquid developer concentrate meets Wellings' requirements of a liquid developer concentrate. Moreover, Lane's liquid developer concentrate comprises a surfactant, which meets the limitation of the liquid developer reconstitution compound recited in the instant claims (item 1). Applicants have not shown that Lane's surfactant is not a liquid developer reconstitution compound. Lane teaches the advantages of using his liquid developer concentrate. In particular, Lane teaches that his liquid developer concentrate can be easily dispersed and eliminates the need for frequent disposal of liquid from the developing apparatus. See the above rejection, fourth paragraph. Thus,

Lane provides a reason, suggestion, and motivation to a person having ordinary skill in the art to use Lane's liquid developer concentrate as the liquid developer concentrate in the image forming process disclosed by Wellings.

Accordingly, for the reasons set forth above and in the rejection, the combined teachings of Wellings and Lane render obvious the instantly claimed process.

12. Claims 1, 3-5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,826,147 (Liu'147) combined with Wellings and Lane, as evidenced by the EXXON product information bulletins for ISOPAR G and H.

Liu'147 discloses a process for forming a toner image comprising the steps of: 1) forming a latent electrostatic image on a photoconductive imaging member by a corona discharger and image-wise exposure; 2) depositing a liquid developer solution on the photoconductive imaging member to form a "toner cake" layer from a liquid developer supply; 3) charging the "toner cake" layer in an imagewise manner by a corona discharger (i.e., scorotron device) before developing the electrostatic image with the "toner cake" to form a secondary latent image in the toner layer; 4) transferring the "toner cake" in the imaged areas of the imaging member onto a separator, leaving "toner cake" in the non-imaged areas on the imaging member, yielding a developed

image on the separator; 5) transferring the developed image to a copy substrate; 6) reclaiming the "toner cake" in the non-imaged areas on the imaging member by scraping off the toner with a blade; and 7) returning the reclaimed toner to a toner sump or other reclamation vessel so that the "toner cake" can be recycled to be used again to produce the toner cake. Col. 7, lines 25-56, col. 8, lines 17-26, col. 9, lines 28-45 and 62-64, col. 12, lines 9-27 and 35-39, col. 12, line 67, to col. 13, line 12, and Figs. 1 and 2. Liu'147 discloses that the "toner cake" formed on the imaging member from the liquid developer desirably has at least approximately 10 wt% of toner particles. Col. 9, lines 6-9.

Liu'147 does not disclose dispersing a liquid toner concentrate as recited in instant claim 1. Nor does Liu'147 explicitly disclose that the reclaimed "toner cake" is added to the liquid developer in the liquid developer supply. However, Liu'147 discloses that toner reclaiming methods disclosed in the relevant patent literature can be used in his process. Col. 13, lines 11-14.

Wellings discloses a process for dispersing a liquid developer concentrate into the carrier liquid of a working liquid developer solution for use in an electrostatic imaging forming process. Col. 1, lines 8-14 and Fig. 1. Wellings' process disperses a liquid developing concentrate in a developing tank at

a rate equivalent to the consumption rate of toner particles in the working liquid developer in the developing tank. Col. 2, lines 1-5. Wellings discloses that the concentration of toner particles in the working liquid developer can range from 2 to 10 wt%. Col. 7, lines 26-29. The amount of 10 wt% toner particles in Wellings' working developer meets the desired amount of toner particles in the "toner cake" layer disclosed by Liu'147 formed from a liquid developer. Wellings further discloses that the reclaimed unused liquid developer scraped from a developer carrier can be returned to the working liquid developer in the developing tank. Col. 5, lines 2-4. Wellings teaches that the concentration of the toner particles in the working liquid developer in the developing tank is monitored by a sensor. Col. 5, lines 24-27, and Fig. 1, reference label 33. The concentration of toner particles of the working developer is maintained at a predetermined concentration by dispersing the liquid developer concentrate in the working liquid developer. Col. 5, lines 27-32. Wellings discloses that his process provides a continuous process of providing a working liquid developer having a predetermined toner particle concentration versus a batch process which is time and cost ineffective. Col. 3, lines 16-19.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Wellings, to add

the reclaimed unused "toner cake" disclosed in the process disclosed by Liu'147 to the liquid developer tank in the process disclosed by Liu'147, and to disperse a liquid developer concentrate, as disclosed by Wellings, into the liquid developer tank in the process disclosed by Liu'147, because that person would have had a reasonable expectation of successfully obtaining a liquid developer imaging process that continuously replenishes the liquid developer, maintaining a predetermined toner particle concentration that is time- and cost-efficient.

Wellings does not disclose that the liquid developer concentrate comprises the liquid developer reconstitution compound recited in instant claim 1. However, Wellings discloses that his liquid developer concentrate comprises toner particles, which comprise a binder resin and a colorant, and a carrier liquid. Col. 5, lines 34-45. The liquid developer concentrate has a high solids content, having a toner particle concentration ranging from 10 to 80 wt%. Col. 5, lines 38-45. Neither Liu'147 nor Wellings limits the type of liquid toner used in their respective processes.

Lane discloses a liquid developer (toner) concentrate comprising up to 80 wt% of toner particles, a surfactant, and a carrier liquid, such as ISOPAR G or H. The discussion of Lane and Wellings with respect to the liquid toner concentrate in paragraph 11 above is incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Lane, to use Lane's liquid developer concentrate comprising a surfactant as the liquid developer concentrate in the process rendered obvious over the combined teachings of Liu'147 and Wellings, because that person would have had a reasonable expectation of successfully obtaining a process for forming a toner image from a liquid toner using a liquid toner concentrate where the toner particles in the liquid developer concentrate are readily redispersed into the working liquid developer.

Applicants' arguments filed in Paper No. 4 have been fully considered but they are not persuasive.

Applicants assert that Liu does not teach the following:
(1) the use of second liquid developer; (2) redispersing the reclaimed developer cake in the second liquid developer; and
(3) the use of second developer which is dielectric as recited in instant claim 4. Applicants further argue that there is no reason or suggestion to combine the teachings of Liu, Wellings, and Lane to arrive at the instant claimed process.

The rejection is not under 35 U.S.C. 102, but under 35 U.S.C. 103(a). Applicants cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. As discussed in the rejection, Liu'147 teaches that returning the reclaimed toner [unused toner

cake scrapped off the imaging member] to a toner sump or other reclamation vessel so that the "toner cake" can be recycled to be used again to produce the toner cake. See Fig. 2, and col. 16, lines 11-14. Liu'147 discloses that toner reclaiming methods disclosed in the relevant patent literature can be used in his process. Col. 13, lines 11-14.

As discussed in the rejection, Wellings discloses a process comprising the step of dispersing a liquid developer concentrate [i.e., a first liquid developer concentrate] into the carrier liquid of a working liquid developer solution [i.e., a second liquid developer] for use in an electrostatic imaging forming process (item 1). Wellings also teaches redispersing reclaimed unused developer cake in the second liquid developer, which is item (2). Wellings discloses the advantages of using his process. Lane teaches a liquid developer concentrate that meets the compositional limitations recited in the instant claims. Lane teaches the advantages of using his liquid developer. See the discussion in the above rejection, and in the rebuttal to applicants' arguments in paragraph 11 above. Furthermore, for the reasons set forth in paragraph 11, which is incorporated by reference in the rejection over Liu, Wellings, and Land², there is ample reason to presume that the working liquid developer obtained by Lane's liquid concentrate is a dielectric as recited in instant claim 4 (item 3).

Thus, Wellings and Lane disclose the features not taught by Liu'147. Wellings and Lane also provide sufficient reason, motivation, and suggestion to a person having ordinary skill in the art to combined the teachings of Liu with those of Wellings and Lane as set forth in the above rejection. Accordingly, the combined teachings of Liu'147, Wellings, and Lane render obvious the instant claimed process.

13. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached on (703) 308-3322. The fax phone number for the

Application/Control Number: 09/514,699
Art Unit: 1753

Page 21

organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 305-7718 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Alva Catlett, whose telephone number is (703) 308-1100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JLD
December 20, 2001

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1509
1700